

REMARKS

Reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks is respectfully requested. This Amendment should be entered under Rule 116 because it places this application in condition for allowance.

By this Amendment, claim 9 is amended, claim 10 is canceled and new claim 17 is added. Accordingly, claims 9 and 11-17 remain pending in the application.

As the outset, Applicants appreciatively note that claims 11 and 12 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, new claim 17 is allowable as it incorporates the allowable subject matter of claim 11 and the subject matter of claim 9 from which claim 11 depends.

Claims 9, 10, and 13-16 stand rejected under 35 U.S.C. §103(a) over Monoi (US 6,153,894) in view of one or more of Sayag et al. (US 5,510,623) and Carroll (US 6,527,442). In response, independent claim 9 is amended, and as presented below, is believed to be patentable over the applied art for the failure of the applied art to disclose, teach or suggest all of Applicants' recited claim features.

As amended claim 9 recites, *inter alia*, an image sensor comprising:

"a reading register placed on the chip at the bottom of the matrix, said register having a horizontal part and two oblique parts running respectively along a horizontal part of the chip and two beveled corners of the chip and said matrix having columns terminating on the reading register on the horizontal part and columns terminating on the register on the two beveled parts of the register, said register including an input configured to store in parallel signals representative of exposure of pixels to light, and an output configured to serially output corresponding signals." (Emphasis added).

Nowhere are at least these features of claim 9 believed to be disclosed or suggested by Monoi. Applicants respectfully submit that although Monoi may appear to disclose two registers that are bent, and therefore may be considered as having a

horizontal part and an oblique part, Applicants respectfully submit that the registers disclosed by Monoi are dedicated to only one line of pixels and fail to render obvious the Applicants' claimed column of pixels. Applicants further submit that Monoi fails to disclose any structure for directing charges from columns towards the register. There could be no column of pixels between the two bent registers.

Furthermore, even assuming Monoi disclosing columns (difficult to imagine based upon the linear sensor disclosed), Applicants submit that the columns could not terminate on both the horizontal part and the beveled parts of the register. If present, Fig. 2 of Monoi clearly indicates that they could only terminate on the horizontal part.

Furthermore, the bending of the register in Monoi is not related in anyway to the existence of beveled corners of the chip since Monoi does not have a chip with beveled corners.

In addition, notwithstanding the Examiner's assertions, Applicants respectfully submit that the Examiner assertion relating to "said register [of Monoi] being bent so as to run alongside the chip," is not supported by Monoi. Nowhere does Monoi disclose a shape of the sides of the chip. Furthermore, Applicants submit that in the art, linear image sensors are known to have a rectangular shape and because Monoi does not suggest otherwise, Monoi's chip is presumed rectangular.

Furthermore, Applicants respectfully disagree with the Examiner's assertion in paragraph 4 of the Office Action, that Monoi discloses "a structure(6,8) for directing photosensitive charges of columns terminating opposite the beveled corners to register stages situated in the oblique parts alongside the beveled corners." Based on the reasoning presented above, Monoi fails to disclose a column terminating opposite oblique portions and further fails to disclose any support for beveled corners.

Sayag fails to remedy the deficiencies of Monoi. Although Sayag may appear to disclose a matrix of pixels with beveled corners on a chip with beveled corners, the known methods of getting charges from the pixels of columns always require that the register be placed along a straight side at the bottom of the matrix. If the matrix does

not have a straight bottom side, there is no known method. Sayag has proposed to have a matrix extending into the beveled portions of the chip. In order to still have a straight "bottom side" of the matrix for placing a register, Sayag reoriented the matrix and divided it into two parts, each having a straight bottom placed in the middle of the chip. Therefore, contrary to the teaching of the claimed invention, Sayag does not have columns which terminate on the register in beveled corners. On the contrary, not only do the columns terminate on a register which is in the middle of the matrix, the register is not bent.

Notwithstanding the Examiner contention that a chip with beveled corners is an obvious shape in certain contexts, combining a chip with beveled corners with Monoi for minimizing discomfort provides no suggestion or motivation that would lead one to select the references and combine them in a way that would produce the invention claimed by the Applicants. More specifically, combining a chip with beveled corners with Monoi would not imply the sensor having pixels extending into the beveled portions of the chip. And if the sensor had pixels in the beveled corners, then the matrix of the cited art must be divided into two portions separated by a straight register.

Accordingly, since neither Monoi nor Sayag discloses, teaches or suggests each and every feature recited in independent claim 9, the rejection of claim 9 under 35 U.S.C. §103(a) is improper. Applicants respectfully submit, therefore, that independent claim 9 is patentable over Monoi and Sayag, either alone or in permissible combinations.

Claims 10 and 13-16 are likewise patentable over the asserted combination of references art at least based on their dependency on claim 9, as well as for additional features they recite.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 9, 10, and 13-17 is earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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